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EXAMINER

HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/15/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/545,851

Applicant(s)

SONODA ET AL.

Examiner

Michael W. Hoye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/10/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 2, 25 and 37 are objected to because of the following informalities: the wording in the second line of each claim, "data are sent" should be --data is sent--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said response information" in line 14. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

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patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5-6, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Gammie et al (USPN 5,270,809), cited by the examiner.

As to claim 1, note the Gammie et al reference which discloses a data transceiving system. Gammie discloses the claimed data that is sent from a broadcasting station (Source program video audio data 202, Fig. 2) to a plurality of television receivers (IRD 206 and TV 220, Fig. 2) by broadcasting over satellite link 205 (see col. 4, line 66 – col. 5, line 17). The claimed response information sent from said television receiver to response information receiving equipment is met by the IRD 206 sending response information via telephone network 207 to the phone processor 208, phone manager 209, business system 210, subscriber authorization computer 211 and supervisory control computer 212 (see col. 5, lines 18-44). Gammie further discloses that the broadcast station makes transmissions inclusive of retrial information to enable the IRDs 206 to make a retry when the television receivers or IRDs have been unable to establish communications with the system receiver when the "Retry" bit has been set at an IRD (see col. 11, lines 14-22).

As to claim 2, Gammie et al discloses a data transceiving system as described above in claim 1. In addition, Gammie discloses that television receivers or IRDs retransmit the response information on the basis of a retry window sent from the central system, which is sent from the central system (see col. 11, lines 14-26).

As to claim 3, Gammie et al discloses the claimed said broadcast unit sends retrial information according to allowable volume of the communication lines by spacing out the

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commands in order to avoid overloading the system with calls (see col. 12, line 61 – col. 13, line 4). The Gammie reference discloses the remainder of claim 3 as previously described in claims 1 and 2 above.

As to claim 5, note the Gammie et al reference which discloses a television receiver. The claimed means for receiving data sent from a broadcast unit is met by the IRD 206 as connected with TV 220 in Fig. 2. The claimed means for outputting display data based on said received data...is met by IRD 206 outputting display data 209 to TV 220 as shown in Fig. 2. The claimed communication means... is met by telephone network 207 as shown in Fig. 2 and previously described above in claim 1 and 2.

As to claim 6, note the Gammie et al reference which discloses a television receiver. The claimed means for receiving data sent from a broadcast unit is met by the IRD 206 as connected with TV 220 in Fig. 2. The claimed means for displaying display data based on said received data...is met by IRD 206 sending display data 209 to TV 220 for display as shown in Fig. 2. The claimed communication means... is met by telephone network 207 as shown in Fig. 2 and previously described above in claims 1 and 2.

As to claim 26, Gammie discloses an IRD 206 and television receiver 220 see Fig. 2. The claimed tuner is met by tuner 304 as shown in Fig. 3. The claimed transport decoder...and AV decoder for outputting display data of a selected service to a monitor is met by downconverter/demodulator 302 and descrambler 303 (Fig. 3). The claimed control input unit is met by user keypad 307 as shown in Fig. 3. The claimed line communication unit for sending response information over a communication line is met by modem 313 (Fig. 3). The claimed CPU is met by processor 304 and DCP 405 (see Figs. 3 and 4). The claimed memory is met by

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processor DCP 405, which may comprise a MC68HC11E9, which inherently comprises memory and a control program (col. 6, lines 62-65). The control program retrieval-transmits said response information to enable the IRDs 206 to make a retry when the television receivers or IRDs have been unable to establish communications with the system receiver when the "Retry" bit has been set at an IRD (see col. 11, lines 14-22).

6. Claims 4, 7, 14-16, 18, 20-22 and 27-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Richards et al (USPN 6,237,146), cited by the examiner.

As to claim 4, note the Richards et al reference which discloses a television receiver 30 (col. 3, lines 8-9). The claimed receiving data from a broadcast unit is met by the Digital Video Home Terminals (DHVT 14) as shown in Fig. 1, which are connected to a television set 30 for displaying images (col. 3, lines 5-19). The claimed transmitting response information to response information receiving equipment over communication lines is met by the DHVT 14, which may uplink information over communication lines 22 to the AMI 22 as shown in Fig. 1 (see col. 3, lines 5-19). The DHVT also retrieval-transmits said response information based on data received from the Administration and Maintenance Interface (AMI 23) when communications could not be established with the receiving equipment (see col. 5, line 36 – col. 6, line 53).

As to claim 7, the Richards et al reference further discloses that the initial transmission scheduling times with said response information receiving equipment are specified after being randomly generated based on received information from the AMI 23 (see col. 5, line 35 – col. 6, line 60 and col. 7, lines 2-25).

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As to claim 14, the Richards et al reference discloses the claimed television and data receiver as described above in claim 4. Richards further discloses that the type of messages may involve Pay-per-view matters (col. 5, lines 28-35). Although, the Richards et al reference does not specifically disclose that the time remaining for transmission is computed from a transmission end time sent from said broadcast unit, and said retrieval transmission conditions are altered according to said time remaining for transmission. It is inherent that there is only a limited time that a user may purchase and view a pay-per-view event, for example, therefore there would only be a certain amount of time remaining for transmission which is determined by a transmission end time that would be sent from the broadcast unit and whereby the retrieval conditions would be altered according to the remaining time left for transmission.

As to claim 15, the Richards et al reference further discloses the claimed notification data that is generated for making notification of the results of communications with the response information receiving equipment as met by acknowledgement or other information that is sent back to the DVHT 14 from the AMI 23 (see col. 7, lines 9-12).

As to claim 16, the Richards et al reference discloses that the claimed communication results are received from the response information receiving equipment or AMI 23 and notification data is generated as described above in claim 15.

As to claim 18, the Richards et al reference further discloses memory means for storing said response information to be transmitted after a delay as shown by RAM 40 in Fig. 2, and the claimed notification means is met by the DVHT 14, which includes the "boot" program 43 contained in ROM 42, the randomized array in RAM 40, and the CPU 38, which operate to

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transmit a message and the AMI 23 sends an acknowledgement back if the message is received (see col. 5, lines 35-54 and col. 7, lines 2-25).

As to claim 20, note the Richards et al reference which discloses a data receiver. The claimed means for receiving data sent from a broadcast unit is met by the Digital Video Home Terminals (DHVT 14) as shown in Fig. 1. The claimed communication means is also met by the DHVT 14, which can uplink information over communication line 22 as shown in Fig. 1 (see col. 3, lines 5-19). The DHVT also retrieval-transmits said response information based on data received from the Administration and Maintenance Interface (AMI 23) when communications could not be established with the receiving equipment (see col. 5, line 36 – col. 6, line 53).

As to claim 21, Richards et al further discloses the claimed retrieval time specifying data computation means as met by the retry algorithms (see col. 5, line 57 – col. 6, line 59 and col. 7, lines 12-32), and the claimed transmission means for retransmitting said stored response information when said retrieval time is reached is also met by the DHVT (see col. 6, lines 43-60 & col. 7, lines 12-32).

As to claim 22, Richards further discloses that the initial transmission scheduling times with said response information receiving equipment are specified after being randomly generated (see col. 5, line 49 – col. 6, line 60).

As to claim 27, the Richards reference discloses a data transceiving system. The claimed server is met by headend 12, which includes AMI 22 and the claimed memory unit is met by database 28 as shown in Fig. 1. The plurality of computers is met by DVHTs 14 as shown in Fig. 1. The claimed server sends data specified by said download requests to said computers is met by the Headend 12 and AMI 22 sending the data to the DVHTs 14 (see col. 3, lines 5-19).



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The AMI 22 sends delaying programs or back-off arrays to the DVHTs 14 so that the DVHTs 14 may attempt to send download requests to the AMI 22 without collision through controlled attempts and reattempts by time delays (see col. 5, line 35 – col. 7, line 32).

As to claim 28, the Richards reference discloses a data transceiving system as previously described in the claims above. The claimed server or AMI 22 sends delaying programs or back-off arrays to the DVHTs 14 so that the DVHTs 14 may attempt to send download requests to the AMI 22 without collision through controlled attempts and reattempts by time delays (see col. 5, line 35 – col. 7, line 32).

As to claims 29-32, the Richards et al reference discloses a data transceiving system, including a broadcast unit, a plurality of data receivers, response information receiving equipment connected to the data receivers via communications lines, and wherein the broadcast unit (AMI 22) sends probability variation data, wherewith the probability of generating a transmission time varies over time, and the data receivers DVHTs 14 determine scheduling times for transmitting to said response information receiving equipment on basis of said received probability variation data is met by the back-off arrays and randomized intervals of time as describe in col. 5, line 35 – col. 7, line 32 and as previously described in the claims related to the Richards et al reference previously described above.

As to claim 33, the Richards et al reference discloses a data transceiving method for receiving broadcast data and sending response information over communication lines. The claimed receiving broadcast data and sending response information over communication lines when data inclusive of retrial information according to allowable volume on said communication lines is received is met by col. 3, lines 5-19, and when communication could not be established

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using said communication lines, said response information is retrieval-transmitted on the basis of said received retrieval information as disclosed in col. 5, line 35 – col. 7, line 25.

As to claim 34, the Richards et al reference discloses a data transceiving method for sending response information over communication lines when data broadcast is received wherein the data includes probability variation data where generating a transmission time varies over time and transmission scheduling times for transmitting over the communication lines 22 are determined on the basis of the received randomized time intervals and back-off array received from the AMI 22 (see col. 5, line 35 – col. 7, line 25).

As to claims 35 and 36, the Richards et al reference discloses a recording medium for storing a program as met by the ROM 42 that has the boot program 43 (col. 5, lines 35-48) that performs all of the claimed processing which is met as described in the system and method claims previously described above.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8, 17, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al.

As to claims 8 and 23, the Richards et al reference discloses the claimed television and data receiver as described above in claims 4 and 20 respectively. The Richards et al reference

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does not specifically disclose determination as to whether or not to make retrieval transmission is made on basis of transmission end time provided by the broadcast unit. However, the examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems to allow only a limited time period for some types of retrieval transmissions to occur for the advantage of not allowing a receiver to send a response to an interactive broadcast once a window of interaction time period has expired. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to allow only a limited time period for some types of retrieval transmissions to occur for the advantage given above.

As to claim 17, the Richards et al reference discloses the claimed television receiver as described above in claim 15. The Richards et al reference does not specifically disclose that a history of communications with said response information receiving equipment is stored in memory, and notification data is generated. However, the examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems to automatically create and maintain communication logs or histories of successful or failed communications with the receiving equipment and to generate appropriate notification data accordingly. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have a history of communications with said response information receiving equipment stored in memory, and generate notification data for the advantages given above.

As to claim 19, the Richards et al reference discloses the claimed television receiver as described above in claim 18. The Richards et al reference does not specifically disclose editing means for editing said response information when an edit instruction is sent from a user.

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However, the examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems to have editing means for editing response information when an edit instruction is sent from a user for the advantages of allowing a user to change the information that is to going to be sent to the information receiving equipment and giving the user more versatility in communicating messages for transmission. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to include editing means for editing said response information when an edit instruction is sent from a user for the advantages given above.

9. Claims 9, 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al., in view of Corrigan et al (USPN 5,966,636), both cited by the examiner.

As to claims 9 and 24, the Richards et al reference discloses the claimed television and data receiver as described above in claims 9 and 24 respectively. The Richards et al reference does not specifically disclose detection means for detecting causes of non-establishment of communications with said response information receiving equipment. The Corrigan et al reference teaches the claimed detection means for detecting causes of non-establishment of communications with said response information receiving equipment as described in col. 11, lines 48-53, where if the number of retries has been exceeded a message will be sent stating the cause for the access failure. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the data receiver of Richards et al with the error detection means of Corrigan et al for the advantage of notifying users of potential causes of the failed communication attempts. One of ordinary skill in the art would have been

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led to make such a modification since it would be beneficial to incorporate error detection means into the data receiver system for locating the causes of communication failures.

As to claim 13, Corrigan further discloses the claimed notification data is generated for making notification of said detected cause by sending a message stating the cause of the access failure (col. 11, lines 50-53).

10. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al., in view of Corrigan et al, in further view of Lowell (USPN 6,012,086), all cited by the examiner.

As to claim 10, the Richards and Corrigan references disclose the claimed television receiver as described above in claim 9. The Richards and Corrigan references do not explicitly disclose retrieval condition alteration means for altering conditions for retrieval transmissions from the next time on, on the basis of the cause detected. Lowell teaches that alternate phone numbers or sources may be used to connect based on errors in attempting to connect to the source server (see col. 7, lines 8-25 and col. 8, lines 15-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the television receivers of Richards and Corrigan with the retrieval condition alteration means for altering conditions for retrieval transmissions from the next time on, on the basis of the cause detected, as disclosed by Lowell. One of ordinary skill in the art would have been led to make such a modification since it would be beneficial for the user if the receiver system automatically made attempts to alter the connection based on initial failed attempts and attempting to avoid the cause of those failed attempts.

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As to claim 11, Richards discloses altering time intervals for retry attempts as previously described above, and Lowell further discloses that the retrial condition alteration means may generate notification data for altering the number of times for retrial transmissions (see col. 7, lines 10-12).

As to claim 12, Lowell further discloses that the retrial condition alteration means suspend retrial transmissions after a specified number of retry attempts have been made or if the server is down, etc... (see col. 7, lines 8-25 and col. 8, lines 15-30).

11. Claims 25 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowell.

As to claims 25 and 37, Lowell discloses the claimed data transceiving system. Lowell discloses that data is sent from a broadcast station or server 104 (Fig. 1) to a plurality of data receivers (client computers 102, see col. 3, lines 31-34 and col. 4, lines 20-24). The claimed response information is sent... from said data receivers to response information receiving equipments by communication lines is met by the client 102 user inputting the information which is sent over network 110 to network server 104 (see col. 5, line 43 – col. 7, line 7). Lowell discloses that retrial information may be contained in the data (col. 7, lines 13-16) and that the receiver or client resends response information based on retrial information when communications could not be established with the response information receiving equipment or server (see col. 7, lines 8-25 and col. 8, lines 15-30). Lowell further discloses that the response information may be sent by a communication line or telephone number other than the original communication line if the first attempt fails (col. 7, lines 13-25 and col. 8, lines 28-30). Lowell does not specifically disclose that the client or data receiver notifies that user that response

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information was received by a communication line other than said communication lines, however, since the system is capable of using alternate methods to achieve a connection it would have been obvious to notify the user of the change in communication lines for the advantage of allowing the user to modify the settings accordingly for improved communication.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al (USPN 6,035,324) – Discloses methods, systems and computer program products for communicating with a web browser. The system discloses exponential back-off and records failures with communications.

Lin et al (USPN 6,381,748) – Discloses an apparatus and methods for network access using a set top box and television.

Perlman et al (USPN 5,978,381) – Discloses a WebTV system and method for transmitting content in a delayed manner or during off-peak hours.

Rhoades (USPN 5,181,107) – Discloses a telephone access information service distribution system that includes display status, attempt to retry, and failure indications.

Shear et al (USPN 6,112,181) – Discloses WebTV/Set Top Box and computer network systems and methods including retransmit retry and failure editing.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is (703) 305-6954.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (703) 305-4795.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Michael W. Hoye  
August 10, 2003

  
JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600